## REMARKS

Claims 1 and 2 were rejected under 35 U.S.C. § 112, second paragraph as being indefinite. Claim 1 was rejected under 35 U.S.C. § 102(b) as being anticipated by US Patent 6,063,515 (Epp). Claim 2 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Epp.

The specification has been amended to replace "diaphragm electrode unit" with "membrane electrode assembly" to correct a mistake in the translation of "Membran-Elektroden-Einheit" in German Patent Application No. DE 103 06 237.8, to which priority is claimed, and to correct mistakes arising therefrom. A corrected translation of German Patent Application No. DE 103 06 237.8 and a corresponding translation certification are enclosed. Support is found in German Patent Application No. DE 103 06 237.8, the entire disclosure of which was incorporated by reference in the present application.

Claims 1 and 2 have been amended. Claims 3 to 10 have been canceled without prejudice. New claims 11 to 14 have been added. Support is found at paragraphs [0031], [0032], for example.

Reconsideration of the application based on the following is respectfully requested.

### Rejections Under 35 U.S.C. §112

Claims 1 and 2 were rejected under 35 U.S.C. § 112, second paragraph as being indefinite.

Claim 1 has been amended and is now submitted as clear and definite. Support is found for example at paragraph [0026] and Fig. 2.

Withdrawal of the rejections of claims 1 and 2 under 35 U.S.C. §112, first paragraph and 35 U.S.C. §112, second paragraph thus is respectfully requested.

### Rejection Under 35 U.S.C. §102(b)

Claim 1 was rejected under 35 U.S.C. § 102(b) as being anticipated by Epp.

Epp discloses an integrated electrochemical fuel cell electric power generation system for use in submarines. (Col. 1, Lines 6 to 9). The system contains a fuel processor with a diffusion membrane hydrogen separator that is used to obtain a substantially pure hydrogen stream from a reformate stream. (abstract; Col. 3, Lines 36 to 40). The system also contains a fuel cell stack

that has an anode and a cathode. (Col. 1, Lines 13 to 18). The hydrogen stream from the fuel processor is then sent to anode side of the fuel cell stack, where an ion exchange membrane isolates the hydrogen steam from an oxygen stream on the cathode side of the fuel cell stack. (Col. 2, Lines 31 to 40; Col. 1., Lines 13 to 26).

Claim 1, as amended, recites a method for controlling a fuel cell system, in which a hydrogen-containing reformer gas is produced in a reformer unit by selectively separating the reformer gas from a gas mixture using a diaphragm module having a separation diaphragm, the method comprising:

during normal operation of the fuel cell system:

keeping the gas mixture at a higher pressure than the separated reformer gas;

supplying the reformer gas to an anode side of a fuel cell module; and

supplying an oxidation agent to a cathode side of the fuel cell module, the fluids on the anode side and the cathode side of the fuel cell module being separated by a membrane electrode assembly; and

in case of the bursting of the diaphragm:

holding a pressure differential between a side of the reformer unit facing the anode side and the cathode side of the fuel cell module below a predefined value, the predefined value corresponding to a pressure differential that causes damage to the membrane electrode assembly.

It is respectfully submitted that Epp does not disclose "holding a pressure differential between a side of the reformer unit facing the anode side and the cathode side of the fuel cell module below a predefined value, the predefined value corresponding to a pressure differential that causes damage to the membrane electrode assembly," as now recited in claim 1. Epp does not disclose anything concerning damage to a membrane electrode assembly by a pressure differential.

Furthermore, it is respectfully submitted that Epp does not even disclose anything regarding the regulation of a pressure differential that may exist when a separation diaphragm bursts. Epp merely indicates that during normal operation a reformer has a pressure of between 400 and 600 psi and the fuel cell and hydrogen fuel stream 113 have a pressure of less than 100 psi. (See Col. 3, Lines 45 to 49). Although in Epp a pressure differential between an area of hydrogen fuel stream 113 and an anode side of the fuel cell and a cathode side of fuel cell may

be dictated by the pressures in the reformer, hydrogen fuel stream 113 and the fuel cell, there is no indication in Epp that such a pressure differential is actually held below a predefined value if the hydrogen separation membrane of Epp bursts. There is also no indication in Epp of a predefined value below which pressure is held.

Whether pressure in the hydrogen fuel stream 113 and anode region of one of the fuel cell of Epps is affected by a burst in the separate membrane of Epp depends on the volume of the enclosure surrounding reformate stream 111 and the volume of the enclosure surrounding hydrogen fuel stream 113. When a larger volume surrounds reformate stream 111 than surrounds hydrogen fuel stream 113 the pressure of hydrogen fuel stream 113 may increase and lead to large pressure difference between hydrogen fuel stream 113 and a cathode side of one of the fuel cells in Epps. Because Epp does not disclose any limitations on volumes of the enclosures surrounding reformate stream 111 and hydrogen fuel stream 113 or anything else to limit pressure changes, Epp does not disclose "in case of the bursting of the diaphragm: holding a pressure differential between a side of the reformer unit facing the anode and the cathode side of the fuel cell module below a predefined value," as recited in claim 1.

Withdrawal of the rejection of claim 1 under 35 U.S.C. § 102(b) is respectfully requested.

**Rejection under 35 U.S.C. § 103(a)**

Claim 2 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Epp.

Epp is described above.

Claim 2 recites the method as recited in claim 1, wherein the differential pressure is essentially held below 500 mbar.

In view of arguments with respect to claim 1, withdrawal of the rejection of claim 2 under 35 U.S.C. § 103(a) is respectfully requested.

Furthermore, it is respectfully submitted that "wherein the differential pressure is essentially held below 500mbar," as recited in claim 2, would not be obvious in view of Epp. Epp discloses a pressure differential of 40 to 80 psi, which converts to approximately 2758 to 5519 mbar, which is significantly higher than the 500 mbar pressure differential recited in claim 2. It is respectfully submitted that one of skill in the art would not have found such a significant variation to have been obvious.

## Conclusion

The present application is respectfully submitted as being in condition for allowance and applicants respectfully request such action.

Respectfully submitted,
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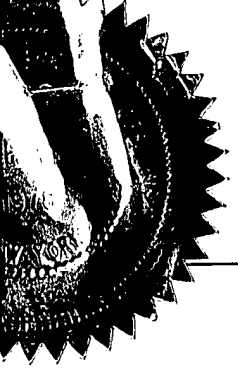


# Accurapid – The Language Service

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**Affidavit of Accuracy**

I, Helmut Froboese, of Accurapid – The Language Service, hereby certify that the attached translation from German to English of Unexamined German Patent Application No. DE 103 06 237 A1, with a filing date at the German Patent Office of February 14, 2003, and a publishing date of September 2, 2004, entitled VERFAHREN ZUM STEUERN EINES BRENNSTOFFZELLENSYSTEMS UND ANORDNUNGEN ZUR DURCHFÜHRUNG DES VERFAHRENS [METHOD FOR CONTROLLING A FUEL CELL SYSTEM AND SYSTEMS FOR EXECUTING THE METHOD] was performed by Accurapid – The Language Service. I also certify that I carefully compared the translation to the original, and that, to the best of my knowledge and belief, it is a true and complete translation of the original text, and that I am a competent translator in the German and English languages.

Poughkeepsie, July 21, 2008

Helmut Froboese

State of New York
County of Dutchess
Sworn before me on this
21st day of July, 2008

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